

## LISTING OF CLAIMS

**The present listing of claims replaces all prior versions.**

1. – 10. (Cancelled).

11 (Presently Amended). In an ~~An~~ SPS system for identifying the location of a receiver in the presence of satellite signal attenuation ~~comprising~~ having a plurality of orbital satellites sending synchronized encoded signals on a carrier frequency wherein said encoded signals have repeated epochs containing synchronization data:

~~a plurality of orbital satellites sending synchronized encoded signals on a carrier frequency wherein said encoded signals have repeated epochs containing synchronization data;~~

a receiver for detecting, acquiring, tracking a set of the encoded signals and simultaneously determining the code phases of said set with respect to said epochs; wherein said encoded signals are comprised of a signal power spectrum and noise; and

an aiding source to transmit information to the ~~SPS system~~ receiver,

wherein said receiver is comprised of a processor controlling a program to extract a signal power spectrum from the noise by averaging across a moving average, wherein said averaging includes ~~program executes~~ executing a FFT across said power spectrum in which squared magnitudes of the resulting FFT bins are filtered and wherein multiple FFT calculations are performed.

12-13 (Cancelled).

14 (Presently Amended). An SPS system for identifying the location of a receiver in the presence of satellite signal attenuation comprising:

a plurality of orbital satellites sending synchronized encoded signals on a carrier

frequency wherein said encoded signals have repeated epochs containing synchronization data;

a receiver for detecting, acquiring, tracking a set of the encoded signals and simultaneously determining the code phases of said set with respect to said epochs; wherein said encoded signals are comprised of a signal power spectrum and noise; and

an aiding source to transmit information to the ~~SPS-system~~ receiver, and algorithm running in a processor that extracts ~~the~~ said signal power spectrum from ~~the~~ said noise by averaging the squared magnitude of an autoconvolution array of a FFT for each channel, through use of a filter.

15. – 19. (cancelled).

20 (New). An SPS system for identifying the location of a receiver in the presence of satellite signal attenuation comprising:

a plurality of orbital satellites sending synchronized encoded signals on a carrier frequency wherein said encoded signals have repeated epochs containing synchronization data;

a receiver for detecting, acquiring, tracking a set of the encoded signals and simultaneously determining the code phases of said set with respect to said epochs; wherein said encoded signals are comprised of a signal power spectrum and noise; and

an aiding source to transmit information to the receiver, wherein said receiver is comprised of a processor controlling a program to extract a signal power spectrum from the noise by averaging across a moving average wherein said averaging includes executing a FFT, wherein the number of FFT steps is comparable to the number of elements in said moving average.